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Day : Tuesday
Date: 9/12/2000
Time: 14:04:17

Inventor Name Search Result

Your Search was:

Last Name = PORTA
First Name = ROBERTO

Serial#	Patent#	Status	Date Filed	Title	Inventor Name
07346502	5008253	150	05/02/1989	SULFOAMINO DERIVATIVES OF CHONDROITIN SULFATES OF DERMATAN SULFATE	PORTA, ROBERTO
07568126	5116617	150	08/16/1990	PHARMACEUTICAL COMPOSITION FOR TOPICAL USE IN THE TREATMENT OF THE	PORTA, ROBERTO
07856787	Not Issued	166	03/24/1992	PHARMACEUTICAL COMPOSITION FOR TOPICAL USE IN THE TREATMENT OF THE	PORTA, ROBERTO
07985726	6046172	150	12/04/1992	HYDROLYTICALLY PROCESSED OLIGODEOXYRIBONUCLEOTIDES AND THEIR PHARMA-	PORTA, ROBERTO
08042903	Not Issued	166	04/05/1993	PHARMACEUTICAL COMPOSITION FOR TOPICAL USE IN THE TREATMENT OF THE	PORTA, ROBERTO
08292176	Not Issued	93	08/18/1994	PHARMACEUTICAL COMPOSITION FOR TOPICAL USE IN THE TREATMENT OF THE	PORTA, ROBERTO
08594522	5646268	150	01/31/1996	OLIGODEOXYRIBONUCLEOTIDES HAVING ANTI-ISCHEMIC ACTIVITY AND METHODS	PORTA, ROBERTO
09330215	Not Issued	30	06/11/1999	USE OF COMPLEXES AMONG CATIONIC LIPOSOMES AND	PORTA, ROBERTO
09332121	Not Issued	41	06/16/1999	AGENTS AND COMPOSITIONS THEREOF FOR THE AIR TREATMENT	PORTA, ROBERTO

Inventor Search Completed: No more records to search.

Search Another: Inventor

Last Name PORTA **First Name** ROBERTO

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L2: Entry 28 of 79 File: USPT Oct 26, 1999

DOCUMENT-IDENTIFIER: US 5972600 A
TITLE: Separation of active complexes

BSPR:
The invention separates defined, active complexes by a physicochemical characteristic from complexes formed by the association of a polynucleotide associated with a transfecting component that increases transfection activity, such as a lipid, cationic lipid, liposome, peptide, cationic peptide, dendrimer or polycation. Active complexes that share a particular characteristic such as density, surface charge or particle size are separated from the excess mixing components. In a preferred embodiment, polynucleotide-transfecting component complexes are ultracentrifuged to resolve one or more bands corresponding to complexes having a specific polynucleotide-transfecting component interaction. When the transfecting component comprises a cationic liposome, gradient processed complexes will resolve into two primary bands corresponding to complexes formed either under excess lipid conditions or under excess polynucleotide conditions. The resolution of the complexes is substantially independent of initial charge ratio. Analysis of average particle size and zeta potential indicate the specific complexes share physical properties and therefore likely correspond to specific polynucleotide-transfecting component interactions.

DEPR:
Complexes formed with these lipids, as well as the other complexes of the invention, can also be separated by methods that can fractionate colloids and particulates based upon size and charge differences. One such technique that is particularly useful is electrical field-flow fractionation. This technique is carried out in a thin channel (circa 200 microns) between smooth and rigid electrodes such as those prepared from graphite. The sample is applied to one end of the channel in a flowing fluid of low ionic strength. The voltage (circa 2 volts) is applied perpendicular to the flow. As the material flows through the channel the negatively charged particles are attracted to one electrode while the positively charged particles are attracted to the opposite electrode. The force attracting the particle to the respective electrode depends upon the diameter of the particle and its zeta potential. Particles that are moved towards the surface of the electrode are retained in the channel to a greater extent than particles that remain in the center of the channel. To separate active complex from the starting components one first mixes the components in the appropriate ratio. The mixture is then introduced into the channel. The flowing fluid carriers the particles through the channel; for particles of the same diameter, the particles with the greater zeta potential are retained to a greater extent than particles with a zeta potential closer to zero. For particles of the same zeta potential, the particles with the greater diameter are retained to a greater extent than are particles with a smaller diameter. In the case of the cationic lipid complexes formed with an excess of cationic liposomes, the complex elutes from the channel more rapidly than the starting cationic liposomes. In the case of the plasmid DNA-lipid complexes formed in the presence of excess DNA, the complex elutes more rapidly than the plasmid DNA. The advantage of separating the complexes using electric field flow fractionation is that the separation are rapid and the conditions can be adjusted using both the flow rate and the field strength. This technique lends it self to scale up.

ORPL:
Gershon et al. Mode of Formation and Structural Features of DNA-Cationic Liposome Complexes Used for Transfection. Biochemistry. 32: 7143-7151, 1993.

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L2: Entry 22 of 79 File: USPT Dec 28, 1999

US-PAT-NO: 6008202
DOCUMENT-IDENTIFIER: US 6008202 A

TITLE: Stable lipid-comprising drug delivery complexes and methods for their production

DATE-ISSUED: December 28, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Huang; Leaf	Wexford	PA	N/A	N/A
Gao; Xiang	Nashville	TN	N/A	N/A
Sorgi; Frank L.	Sonoma	CA	N/A	N/A
Paul; Ralph Wilfred	Seattle	WA	N/A	N/A
Sloane; David L.	Bainbridge Island	WA	N/A	N/A
Loomis; Aaron Garth	Seattle	WA	N/A	N/A

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
University of Pittsburgh	N/A	N/A	N/A	N/A	02
Targeted Genetics Corporation	N/A	N/A	N/A	N/A	02

APPL-NO: 8/ 939874
DATE FILED: September 29, 1997

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is a continuation-in-part of U.S. patent application Ser. No. 08/751,888, filed on Nov. 18, 1996, now abandoned, and a continuation-in-part of U.S. patent application Ser. No. 08/376,701, filed on Jan. 23, 1995, now U.S. Pat. No. 5,795,587, issued Aug. 18, 1998, the disclosures of each of which are hereby incorporated by reference.

INT-CL: [6] A61K 9/127, A61K 31/00, A61K 48/00
US-CL-ISSUED: 514/44; 514/1, 424/450
US-CL-CURRENT: 514/44; 424/450, 514/1
FIELD-OF-SEARCH: 424/450, 514/1, 514/44

REF-CITED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4544545	October 1985	Ryan et al.	424/1.21
☐	4897355	January 1990	Eppstein et al.	424/450
☐	4958013	September 1990	Letsinger	536/24.5
☐	5100662	March 1992	Bolcsak et al.	424/450
☐	5264618	November 1993	Felgner et al.	560/224
☐	5279833	January 1994	Rose	424/450
☐	5283185	February 1994	Epand et al.	435/458
☐	5334761	August 1994	Gebeyehu et al.	564/197
☐	5366737	November 1994	Eppstein et al.	424/450
☐	5374548	December 1994	Caras	424/450
☐	5523222	June 1996	Page et al.	435/172.3
☐	5540933	July 1996	Ruoslahti	424/450
☐	5545412	August 1996	Eppstein et al.	424/450
☐	5661025	August 1997	Szoka, Jr. et al.	435/458
☐	5795587	August 1998	Gao et al.	424/450

OTHER PUBLICATIONS

X Gao et al (1991) Biochem Biophys Res. Comm. 79:280-285.
Behr et al., "Efficient gene transfer into mammalian primary endocrine cells with lipolyamine-coated DNA" Proc. Natl. Acad. Sci. USA (1989) 86:6982-6986.
Cheetham et al., "Cholesterol sulfate inhibits the fusion of sendai virus to biological and model membranes" J. Biol. Chem. (1990) 265:12404-12409.
Demeneix, "Temporal and spatial expression of lipospermine-compacted genes transferred into chick embryos in vivo" Bio Techniques (1994) 16:496-501.
Felgner, "Lipofection: A highly efficient, lipid-mediated DNA-transfection procedure" Proc. Natl. Acad. Sci. USA (1987) 84:7413-7417.
Gao, X. and Huang, L., "A novel cationic liposome reagent for efficient transfection of mammalian cells" Biochem. Biophys. Res. Comm. (1991) 179:280-285.
Hui et al., "Induction of alloreactive cytotoxic T lymphocytes by intra-splenic immunization with allogenic class I major histocompatibility complex DNA and DC-CHOL cationic liposomes" J. Liposome Res. (1994) 4:1077-1078.
Letsinger et al., "Cholesteryl-conjugated oligonucleotides: Synthesis, properties, and activity as inhibitors of replication of human immunodeficiency virus in cell structure" Proc. Natl. Acad. Sci. USA (1989) 86:6553-6556.
Malone et al., "Cationic liposome-mediated RNA transfection" Proc. Natl. Acad. Sci. USA (1989) 86:6077-6081.
Pinnaduwage et al., "Use of a quaternary ammonium detergent in liposome mediated DNA transfection of mouse L-cells" Biochim. Biophys. Acta (1989) 985:33-37.
Rose et al., "A new cationic liposome reagent mediating nearly quantitative transfection of animal cells" BioTechniques (1991) 10:520-525.
Stamatatos et al., "Interactions of cationic lipid vesicles with negatively charged phospholipid vesicles and biological membranes" Biochemistry (1988) 27:3917-3925.
Sternberg et al., "New structures in complex formation between DNA and cationic liposomes visualized by freeze-fracture electron microscopy" FEBS Lett. (1994) 356:361-366.
Stewart et al., "Gene transfer in vivo with DNA-liposome complexes: Safety and acute toxicity in mice" Human Gene Therapy (1992) 3:267-275.
Zhou et al., "Lipophilic polylysines mediate efficient DNA transfection in mammalian cells" Biochim. Biophys. Acta (1991) 1065:8-14.

ART-UNIT: 162
PRIMARY-EXAMINER: Campell; Bruce R.
ATTY-AGENT-FIRM: Morrison & Foerster LLP

ABSTRACT:

Novel stable, concentrated, biologically active and ready-to-use lipid-comprising drug delivery complexes and methods for their production are described. The biological activity of the complexes produced are comparable to the formulations prepared according to the prior art admixture method and upon purification, the complexes produced by the method of this invention are 50 to 500 fold more concentrated than the complexes formed by admixture. The method described herein provides for the large scale production of lipid-comprising drug delivery systems useful for gene therapy and other applications.

46 Claims, 24 Drawing figures

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Search Results - Record(s) 1 through 7 of 7 returned.

☐ 1. Document ID: US 6074667 A

L4: Entry 1 of 7 File: USPT Jun 13, 2000

US-PAT-NO: 6074667
DOCUMENT-IDENTIFIER: US 6074667 A
TITLE: Liposomal transfection method

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 6043094 A

L4: Entry 2 of 7 File: USPT Mar 28, 2000

US-PAT-NO: 6043094
DOCUMENT-IDENTIFIER: US 6043094 A
TITLE: Therapeutic liposome composition and method

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: US 5994314 A

L4: Entry 3 of 7 File: USPT Nov 30, 1999

US-PAT-NO: 5994314
DOCUMENT-IDENTIFIER: US 5994314 A
TITLE: Compositions and methods for nucleic acid delivery to the lung

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 4. Document ID: US 5985320 A

L4: Entry 4 of 7 File: USPT Nov 16, 1999

US-PAT-NO: 5985320
DOCUMENT-IDENTIFIER: US 5985320 A
TITLE: Materials and methods for enhancing cellular internalization

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 5. Document ID: US 5891468 A

L4: Entry 5 of 7 File: USPT Apr 6, 1999

US-PAT-NO: 5891468
DOCUMENT-IDENTIFIER: US 5891468 A
TITLE: Fusogenic liposome compositions and method

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 6. Document ID: US 5851818 A

L4: Entry 6 of 7 File: USPT Dec 22, 1998

US-PAT-NO: 5851818
DOCUMENT-IDENTIFIER: US 5851818 A
TITLE: Condensed plasmid-liposome complex for transfection

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 7. Document ID: US 5837283 A

L4: Entry 7 of 7 File: USPT Nov 17, 1998

US-PAT-NO: 5837283
DOCUMENT-IDENTIFIER: US 5837283 A
TITLE: Cationic lipid compositions targeting angiogenic endothelial cells

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

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Terms	Documents
(cationic adj1 liposome$) adj5 (surface)	7

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Terms	Documents
(cationic adj1 liposome$) adj5 (surface)	7

Database: US Patents Full-Text Database; JPO Abstracts Database; EPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletins

Refine Search: (cationic adj1 liposome$) adj5 (surface) Clear

Search History

Today's Date: 9/12/2000

DB Name	Query	Hit Count	Set Name
USPT,JPAB,EPAB,DWPI,TDBD	(cationic adj1 liposome$) adj5 (surface)	7	L4
USPT,JPAB,EPAB,DWPI,TDBD	(cationic adj1 liposome$) adj5 (complex$$$) same polydeoxyribonucleotide$	0	L3
USPT,JPAB,EPAB,DWPI,TDBD	(cationic adj1 liposome$) adj5 (complex$$$)	79	L2
USPT,JPAB,EPAB,DWPI,TDBD	(cationic adj1 liposome$) adj5 (external adj1 surface)	0	L1

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L6: Entry 2 of 3 File: USPT Jul 29, 1997

DOCUMENT-IDENTIFIER: US 5652225 A
TITLE: Methods and products for nucleic acid delivery

ABPL:
The present invention provides a method for the delivery of a nucleic acid to an arterial cell comprising contacting the cell with a hydrophilic polymer incorporating the nucleic acid. The nucleic acid may be any nucleic acid, including antisense DNA or RNA. The nucleic acid may encode hormones, enzymes, receptors or drugs of interest. The nucleic acid is selected based upon the desired therapeutic outcome. For example, in the treatment of ischemic diseases, one would select a DNA encoding an angiogenic protein. The nucleic acid may be carried by a microdelivery vehicle such as cationic liposomes and adenoviral vectors. DNA encoding different proteins may be used separately or simultaneously.

BSPR:
The present invention provides a method for the delivery of a nucleic acid to an arterial cell comprising contacting the cell with a hydrophilic polymer incorporating the nucleic acid. The nucleic acid may be any nucleic acid, DNA and RNA, including antisense DNA or RNA. The DNA may encode hormones, enzymes, receptors or drugs of interest. The nucleic acid is selected based upon the desired therapeutic outcome. For example, in the treatment of ischemic diseases, the genetic material of choice is DNA encoding an angiogenic protein. The nucleic acid may be carried by a microdelivery vehicle such as cationic liposomes and adenoviral vectors. DNA encoding different proteins may be used separately or simultaneously.

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Search Results -

Terms	Documents
(cationic adj1 liposome$) same ($$$$$ischemic)	3

Database: US Patents Full-Text Database; JPO Abstracts Database; EPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletins

Refine Search: (cationic adj1 liposome$) same ($$$$$ischemic) Clear

Search History

Today's Date: 9/12/2000

DB Name	Query	Hit Count	Set Name
USPT,JPAB,EPAB,DWPI,TDBD	(cationic adj1 liposome$) same ($$$$$ischemic)	3	L6
USPT,JPAB,EPAB,DWPI,TDBD	(cationic adj1 liposome$) same (anti adj1 ischemic)	0	L5
USPT,JPAB,EPAB,DWPI,TDBD	(cationic adj1 liposome$) adj5 (surface)	7	L4
USPT,JPAB,EPAB,DWPI,TDBD	(cationic adj1 liposome$) adj5 (complex$$$) same polydeoxyribonucleotide$	0	L3
USPT,JPAB,EPAB,DWPI,TDBD	(cationic adj1 liposome$) adj5 (complex$$$)	79	L2
USPT,JPAB,EPAB,DWPI,TDBD	(cationic adj1 liposome$) adj5 (external adj1 surface)	0	L1